

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus, comprising:

a semiconductor die including active ~~semiconductor components~~circuitry formed on a frontside and having a plurality of conductive through via-vias formed therein from the frontside to a backside, the die comprising a power requirement and an external signal requirement;

a plurality of first interconnect-interconnects formed on a frontside of the die and a plurality of second interconnect-interconnects formed on a backside of the die, respective ones of the plurality of second interconnects coupled with to the plurality of through viavias; and

a first package substrate electrically coupled ~~with~~to the plurality of first interconnect interconnects and a second package substrate electrically coupled ~~with~~to the plurality of second interconnects~~interconnects~~,

wherein a portion of at least one of the power requirement and the external signal requirement is supplied through the first package substrate ad a remainder portion of at least one of the power requirement and the external signal requirement is supplied through the second package substrate.

2. (Original) The apparatus of claim 1, further comprising a first underfill layer between the front side of the die and the first substrate and a second underfill layer between the backside of the die and the second substrate.

3. (Original) The apparatus of claim 1, further comprising a substrate ball electrically coupled between the first and second substrates.

4. (Currently Amended) The apparatus of claim 1, wherein the plurality of the first interconnects and the plurality of the second interconnects comprise solder balls.

5. (Original) The apparatus of claim 1, wherein the semiconductor die is thinned using one selected from the group consisting of a backgrinding process, a chemical mechanical polishing (CMP) process, and a spin etching process.

6. (Original) The apparatus of claim 2, wherein the underfill layers comprise a no-flow underfill material.

7-9. (Canceled)

10. (Currently Amended) A method, comprising:

forming a plurality of conductive through via-vias in a back side of a semiconductor die including active ~~semiconductor components~~ circuitry on a frontside and ~~attaching~~ coupling a plurality of first interconnect-interconnects to ~~the~~ respective ones of the plurality of through vias;

~~attaching~~ coupling a plurality of second interconnect-interconnects to a ~~device side~~ frontside of the die;

electrically coupling the plurality of first interconnect-interconnects to a first substrate;
and

electrically coupling the plurality of second interconnect-interconnects to a second substrate,

wherein a portion of at least one of a power requirement of the die and an external signal requirement of the die is supplied through the first substrate and a remainder portion of at least one of the power requirement and the external signal requirement is supplied through the second substrate.

11. (Currently Amended) The method of claim 10, wherein the plurality of through via connects-vias connect with the device side.

12. (Original) The method of claim 10, further comprising:
dispensing a first underfill layer on the first package substrate; and
dispensing a second underfill layer on the backside of the semiconductor die.
13. (Original) The method of claim 12, further comprising:
attaching a substrate ball between the first and second package substrates.
14. (Currently Amended) The method of claim 10, wherein the plurality of first interconnects and the plurality of second interconnects comprise solder balls.
15. (Original) The method of claim 10, further comprising thinning the semiconductor die.
16. (Original) The method of claim 10, wherein the first and second underfill layers comprise a no-flow underfill.
- 17-21. (Canceled)
22. (New) An apparatus comprising:
a die including device circuitry on a first side and a second side opposite the front side;
a plurality of contact points on the second side of the die; and
a plurality of conductive through vias coupling the device circuitry to the contact points,
wherein a portion of at least one of a power requirement and an external signal requirement of the die may be met through electrical connections to the contact points.
23. (New) The apparatus of claim 22, wherein the contact points comprise a first set of contact points, the apparatus further comprising a second set of contact points on the first side of the die and coupled to the device circuitry, wherein a remainder portion of at least one of the

power requirement and the external signal requirement of the die may be met through electrical connections to the contact points.